Graphic Arts

			Rule/Measure/Date										
Regulated Component	Pollutant	Ar	y Area 8-20, Graphic ts Printing & Coating perations, 12/20/95						ojave 1117, Graphic ts, 06/22/94		acer 239, Graphic Arts perations, 08/14/97		
			Performance Standard										
exempt compounds	VOC		other compounds		methylene chloride; 1,1,1,trichloroethane plus other compounds		methylene chloride; 1,1,1,trichloroethane plus other compounds		methylene chloride; 1,1,1,trichloroethane plus other compounds		methylene chloride; 1,1,1,trichloroethane; perchloroethylene plus other compounds		
ink	VOC	X	300 grams VOC per liter of product, less water, as applied	x	300 grams VOC per liter of material, less water and exempt compounds, as applied	v	300 grams VOC per liter, less water and exempt compounds	х	300 grams VOC per liter, less water and exempt compounds, as applied	Х	300 grams VOC per liter of material, less water and exempt compounds, as applied		
coating	VOC	х	300 grams VOC per liter of product, less water, as applied	х	300 grams VOC per liter of material, less water and exempt compounds, as applied	v	300 grams VOC per liter, less water and exempt compounds	х	300 grams VOC per liter, less water and exempt compounds, as applied	х	300 grams VOC per liter of material, less water and exempt compounds, as applied		
adhesive	VOC	х	150 grams VOC per liter of product, less water, as applied		300 grams VOC per liter of material, less water and exempt compounds, as applied		300 grams VOC per liter, less water and exempt compounds		300 grams VOC per liter, less water and exempt compounds, as applied		300 grams VOC per liter of material, less water and exempt compounds, as applied		
web splicing adhesive	VOC	X	300 grams VOC per liter of product, less water, as applied										
specialty inks	VOC												
metallic ink	VOC												

			Rule/Measure/Date										
Regulated Component	Pollutant	Bay Area 8-20, Graphic Arts Printing & Coating Operations, 12/20/95	El Dorado 231, Graphic Arts, Operations, 09/27/94 Kern 410.7, Graphic Arts, Mojave 1117, Graphic Arts, 06/22/94 Placer 239, Graphic A Operations, 08/14/97	rts									
		Performance Standard											
 matte finish ink 	VOC												
fountain solution	VOC	x 8 % VOC by volume ~ 63 g/l 1	116 grams of VOC per liter of material, as applied 15 % by volume 116 grams VOC per of material, as applied										
publication gravure	VOC	overall collection and control efficiency of x 85% mass basis	see emissions control (67 %) 90% capture efficiency; 95% control device efficiency, or emission reduced by at least 85% overall 90% control device efficiency, and 75 % combined capture and control emission reduction efficiency	rol									
packaging gravure	VOC	75% see gravure x	see emissions control (67 %) 90% capture efficiency; 95% control device efficiency; or emission reduced by at least 75% overall 90% control device efficiency, and 65 % combined capture and control emission reduction efficiency	ol									

¹63 g/l VOC was a rough calculation for the equivalent VOC content of 8%; the next lowest VOC content requirement is 100 g/l

						Rule/Measure/Date					
Regulated Component	Pollutant	Bay Area 8-20, Graphic Arts Printing & Coating Operations, 12/20/95		El Dorado 231, Graphic Arts Operations, 09/27/94		Kern 410.7, Graphic Arts, 03/07/96		Mojave 1117, Graphic Arts, 06/22/94		acer 239, Graphic Arts perations, 08/14/97	
		Performance Standard									
specialty gravure	VOC	75% see gravure x		see emissions control (67 %)		90% capture efficiency; 95% control device efficiency; or emission reduced by at least 75% overall				see emissions control (67 %)	
gravure	VOC	collection and control x efficiency of 75% overall on a mass basis		see emissions control (67 %)						see emissions control (67 %)	
flexography	VOC	collection and control efficiency of 75% x overall on a mass basis		see emissions control (67 %)		90% capture efficiency; 95% control device efficiency; or emission reduced by at least 75% overall		90% control device efficiency, and 60 % combined capture and control emission reduction efficiency		see emissions control (67 %)	
letterpress	VOC	collection and control efficiency of 75% x overall on a mass basis		see emissions control (67 %)		90% capture efficiency; 95% control device efficiency; or emission reduced by at least 75% overall		exempt		see emissions control (67 %)	

			Rule/Measure/Date										
Regulated Component	Pollutant	Bay Area 8-20, Graphic Arts Printing & Coating Operations, 12/20/95		l Dorado 231, Graphic rts Operations, 09/27/94	ern 410.7, Graphic Arts, /07/96	Mojave 1117, Graphic Arts, 06/22/94 Placer 239, Graphi Operations, 08/14/9			acer 239, Graphic Arts perations, 08/14/97				
					Performance Standard								
lithographic	VOC	collection and control efficiency of 75% x overall on a mass basis		see emissions control (67 %)		90% capture efficiency; 95% control device efficiency; or emission reduced by at least 75% overall		exempt		see emissions control (67 %)			
wall paper screen	VOC			see emissions control (67 %)									
General Emission Limi	tations:												
emission from printing and drying operations	VOC												
emissions from other types of printing	VOC												
emissions control	VOC	collection and control efficiency of 75% overall on a mass basis		control device efficiency of 95 % on a mass basis and emission collection efficiency of 70 %						control device efficiency of 95 % on a mass basis and emission collection efficiency of 70 %			

			Rule/Measure/Date										
Regulated Component	Pollutant	Bay Area 8-20, Graphic Arts Printing & Coating Operations, 12/20/95	El Dorado 231, Graphic Arts Operations, 09/27/94	Kern 410.7, Graphic Arts, 03/07/96		Placer 239, Graphic Arts Operations, 08/14/97							
			Performance Standard										
records - lists of solutions	VOC	maintain list of inks, coating, adhesives, fountain solutions and makeup solvent with the VOC content	maintain list of inks, coating, adhesives, fountain solutions, makeup solvent, surface preparation and cleanup solvents with the VOC content	maintain list of inks and solvents with the mix ratio of components used, VOC content and chemical constituents	material name, manufacturer id, mixing instruction, VOC content for ink, coating, and adhesive (packaging rotogravure, publication rotogravure, and flexographic printing)	maintain list of inks, coating, adhesives, fountain solutions, makeup solvents, surface prep, and cleanup solvents with the VOC content on an as applied basis							
records - type & quantity of use	VOC	record type and quantity of ink, coating, adhesive, fountain solution and makeup solvent use on a monthly basis	record type and quantity of use on a monthly basis	maintain records on a daily and monthly basis: vol ink/solvent mix ratio; VOC content (lbs/gal); vol of coating or ink used (gal) VOC content and quantity of solvent (gal)		record type and quantity of use on a monthly basis							
records - retention time	VOC	retain records for two years	retain records for two years	retain records for two years	x retain records for five years	retain records for two years							

		Rule/Measure/Date										
Regulated Component	Pollutant	Bay Area 8-20, Graphi Arts Printing & Coatin Operations, 12/20/95		Kern 410.7, Graphic Arts, 03/07/96	Mojave 1117, Graphic Arts, 06/22/94	Placer 239, Graphic Arts Operations, 08/14/97						
			Performance Standard									
monitoring	VOC	emission controls so have a readily visib temperature gauge monitoring the operating temperature during operation	e									
			record type and quantity of ink, coating, adhesive, fountain solution, makeup solvent, surface preparation and cleanup solvents on a daily basis if using emission controls		type and amount of ink, coating, and adhesive used with VOC content and density recorded daily	record type and quantity of use on a daily basis if using emission controls						
		daily records of key x system operating parameters			daily records of key system operating parameters	O & M plan required						
		x exempt facilities maintain records	x exempt facilities maintain records	x exempt facilities maintain records	x exempt facilities maintain records	x exempt facilities maintain records						

			Rule/Measure/Date											
Regulated Component	Pollutant		cramento 450, Graphic ets Operations, 12/05/96		n Diego 67.16, Graphic ts Operations, 05/15/96				uth Coast 1130, Graphic ts, 03/08/96		entura 74.19, Graphic rts, 09/10/96			
			Performance Standard											
exempt compounds	VOC		methylene chloride; 1,1,1,trichloroethane; perchloroethylene plus other compounds		methylene chloride; 1,1,1,trichloroethane; perchloroethylene plus other compounds		methylene chloride; 1,1,1,trichloroethane; plus other compounds		methylene chloride; 1,1,1,trichloroethane; perchloroethylene plus others		methylene chloride; 1,1,1,trichloroethane; plus other compounds			
ink	VOC	x	300 grams of VOC per liter of materials, less water and exempt compounds	X	300 grams of VOC per liter as applied, less water and exempt compounds used	v	300 grams of VOC per liter less water and exempt compounds	X	300 grams of VOC per liter less water and exempt compounds	Х	300 grams of VOC per liter as applied, less water and exempt compounds			
coating	VOC	x	300 grams of VOC per liter of materials, less water and exempt compounds	X	300 grams of VOC per liter as applied, less water and exempt compounds used	Х	300 grams of VOC per liter less water and exempt compounds	X	300 grams of VOC per liter less water and exempt compounds	X	300 grams of VOC per liter as applied, less water and exempt compounds			
adhesive	VOC		300 grams of VOC per liter of materials, less water and exempt compounds		300 grams of VOC per liter as applied, less water and exempt compounds used		300 grams of VOC per liter less water and exempt compounds (150 g/l 9/17/99)		300 grams of VOC per liter less water and exempt compounds		300 grams of VOC per liter as applied, less water and exempt compounds			
web splicing adhesive	VOC					X	300 grams of VOC per liter less water and exempt compounds (9/17/99)							
specialty inks							2 gallons per day 120 gallons per year		see metallic ink and matte finish ink					

		Rule/Measure/Date										
Regulated Component	Pollutant	Sacramento 450, Graphic Arts Operations, 12/05/96		n Diego 67.16, Graphic ts Operations, 05/15/96				uth Coast 1130, Graphic ts, 03/08/96		entura 74.19, Graphic ts, 09/10/96		
]	Performance Standard						
metallic ink	VOC					485 g/l (9/17/98)		300 g/l unless usage is 2 gallons/day and 125 gallons/year or less and the PTE is 10 tons/yr or less and the VOC content < 535 g/l				
• matte finish ink	VOC					535 g/l (9/17/98)		300 g/l unless usage is 2 gallons/day and 125 gallons/year or less and the PTE is 10 tons/yr or less and the VOC content < 460 g/l				
fountain solution	VOC	116 grams VOC per liter of material, as applied		15 % by volume VOC, as applied		15 % VOC by volume (10 % in 1998, 8 % in 2000)	х	100 grams VOC per liter of material or 67 % overall control		115 grams VOC per liter		
publication gravure	VOC	exempt	х	85 % see emission control (same as Bay Area)		75 % combined collection and control		75 % overall control efficiency		capture and control combined efficiency of 75 %		
packaging gravure	VOC	67% or 75% reduction per production unit on a daily basis (see emissions control)		85 % see emission control		67% combined collection and control see emissions from other types of printing		67 % overall control efficiency		67% see emissions from other types of printing		

			Rule/Measure/Date											
Regulated Component	Pollutant	Sacramento 450, Graphic Arts Operations, 12/05/96 San Diego 67.16, Graphic San Joaquin Valley 4607, Graphic Arts, 09/17/97 South Coast Arts, 09/17/97 Arts, 03/08/9				Ventura 74.19, Graphic Arts, 09/10/96								
			Performance Standard											
specialty gravure	VOC	67% or 75% reduction per production unit on a daily basis (see emissions control)	85 % see emission control	67% combined collection and control see emissions from other types of printing		67% see emissions from other types of printing								
gravure	VOC		85 % see emission control	67% combined collection and control see emissions from other types of printing		67% by weight see emissions from other types of printing								
flexography	VOC	67% or 75% reduction per production unit on a daily basis (see emissions control)	85 % see emission control	67% combined collection and control see emissions from other types of printing	67 % overall control efficiency	67% by weight see emissions from other types of printing								
letterpress	VOC	67% or 75% reduction per production unit on a daily basis (see emissions control)	85 % see emission control	67% combined collection and control see emissions from other types of printing	67 % overall control efficiency	67% by weight see emissions from other types of printing								
lithographic	VOC	67% or 75% reduction per production unit on a daily basis (see emissions control)	85 % see emission control	67% combined collection and control see emissions from other types of printing	67 % overall control efficiency	67% by weight see emissions from other types of printing								

			Rule/Measure/Date											
Regulated Component	Pollutant	Sacramento 450, Graphic Arts Operations, 12/05/96		n Diego 67.16, Graphic ts Operations, 05/15/96				outh Coast 1130, Graphic tts, 03/08/96		entura 74.19, Graphic rts, 09/10/96				
]	Performance Standard			•					
wall paper screen	VOC	67% or 75% reduction per production unit on a daily basis (see emissions control)												
General Emission Limit	tations:													
emission from printing and drying operations	VOC													
emissions from other types of printing	VOC					overall control efficiency of 67 %				67 % by weight				
emissions control	VOC	control device efficiency of 95 % on a mass basis and emission collection efficiency of 70 %		85 % combined capture and control device efficiency										
records - lists of solutions	VOC	maintain list with the VOC content on an asapplied basis		maintain list with the type, dilution ratio, VOC content		maintain list with the material name, manufacturer's name, VOC content as applied, mixing instructions, density, and vapor pressure		see Rule 109 list district rule number, permit units involved, method of application and substrate type, the VOC content		maintain list including material name, manufacturer id, mixing instructions and VOC content				

			Rule/Measure/Date										
Regulated Component	Pollutant	Sacramento 450, Graphic Arts Operations, 12/05/96		n Diego 67.16, Graphic rts Operations, 05/15/96				uth Coast 1130, Graphic ts, 03/08/96		entura 74.19, Graphic ts, 09/10/96			
		Performance Standard											
records - type & quantity of use	VOC	record quantity of use on a monthly basis		record quantity of use on a daily or monthly basis		record quantity of use on a monthly basis		amount and type of graphic arts material used		record quantity of use on a daily basis (or monthly for small use and research exemption)			
records - retention time	VOC	retain records for two years		retain records for three years		retain records for two years		retain records for two years		retain records for two years			
monitoring	VOC												
		daily records of the type and volume of materials used if using control system		daily records of the type and volume of materials used if using control system		daily records of the type and volume of materials u sed if using control system							
		O & M plan required		daily records of key system operating parameters		daily records of key system operating parameters				daily records of key system operating parameters			
		x exempt facilities maintain records	X	exempt facilities maintain records		exempt facilities maintain records		* not clear					

				Rule/Measure/Date	
Regulated Component	Pollutant	Yolo-Solano 2.29, Graphic Arts Printing Operations, 05/25/94	Printing and Publishing NESHAP		
				Performance Standard	
exempt compounds	VOC	methylene chloride; 1,1,1,trichloroethane plus others			
ink	VOC	x 300 grams VOC per liter of product as applied, less water and exempt compounds	limit emissions to < 4 % of the mass for the month for product and packaging rotogravure or wideweb flexographic printing		
coating	VOC	x 300 grams VOC per liter of product as applied, less water and exempt compounds	limit emissions to < 4 % of the mass for the month for product and packaging rotogravure or wide- web flexographic printing		

			Rule/Measure/Date							
Regulated Component	Pollutant	Yolo-Solano 2.29, Graphic Arts Printing Operations, 05/25/94	rinting and Publishing ESHAP							
				Performance Standard						
adhesive	VOC	x 150 grams VOC per liter of product as applied, less water and exempt compounds	limit emissions to < 4 % of the mass for the month for product and packaging rotogravure or wideweb flexographic printing							
web splicing adhesive	VOC	300 grams VOC per liter of product as applied, less water and exempt compounds	limit emissions to < 4 % of the mass for the month for product and packaging rotogravure or wideweb flexographic printing							
specialty inks	VOC									
metallic ink	VOC									
 matte finish ink 	VOC									
fountain solution	VOC	100 g of VOC per liter of material, as applied								

			Rule/Measure/Date
Regulated Component	Pollutant	Yolo-Solano 2.29, Graphic Arts Printing Operations, 05/25/94	Printing and Publishing NESHAP
			Performance Standard
publication gravure	VOC	85 % see emissions from printing and drying operations	92% overall control of organic HAP (assume HAP control = VOC control) or mass of organic HAP < 8% of the mass of volatile matter used
packaging gravure	VOC	85 % see emissions from printing and drying operations	95% overall control of organic HAP (assume HAP control = VOC control) mass of organic HAP < 5% of the mass of volatile matter used
specialty gravure	VOC	85 % see emissions from printing and drying operations	
gravure	VOC	75 % overall collection and control efficiency	

			Rule/Measure/Date						
Regulated Component	Pollutant		nting and Publishing ESHAP						
			Performance Standard						
flexography	VOC	75 % overall collection and control efficiency	95% overall control of organic HAP (assume HAP control = VOC control)						
letterpress	VOC	75 % overall collection and control efficiency							
lithographic	VOC	75 % overall collection and control efficiency							
wall paper screen	VOC								
General Emission Limit	tations:								
emissions from printing and drying operations	VOC	overall collection and control efficiency of 85 % mass basis							
emission from other types of printing	VOC								

			Rule/Measure/Date							
Regulated Component		Yolo-Solano 2.29, Graphic Arts Printing Operations, 05/25/94	Printing and Publishing NESHAP							
				I	Performance Standard					
emissions control	VOC		92% overall control of organic HAP (assume HAP control = VOC control) for publication rotogravure and 95 % overall control of organic HAP for product and packaging rotogravure and wideweb flexographic printing							
records - lists of solutions	VOC	maintain list with the VOC content								
records - type & quantity of use	VOC	record quantity of use on a monthly basis								

			Rule/Measure/Date							
Regulated Component	Pollutant			nting and Publishing SSHAP						
			Performance Standard							
records - retention time	VOC	retain records for two years								
monitoring	VOC									
		daily records of the type and volume of materials used if using control system								
		O & M plan required and daily record key operating parameters								

			Rule/Measure		
Rule/Measure	Bay Area 8-20, Graphic Arts Printing & Coating Operations, 12/20/95	El Dorado 231, Graphic Arts Operations, 09/27/94	Kern 410.7, Graphic Arts, 03/07/96	Mojave 1117, Graphic Arts, 06/22/94	Placer 239, Graphic Arts Operations, 08/14/97
Exemptions	small user emitting < 400 lbs per month including surface prep and cleanup	small user emitting < 660 lbs per month including surface prep and cleanup	any facility emitting < 75 lbs per day	any facility emitting < 2500 lbs per month	any facility emitting < 660 lbs per month including surface prep and cleanup
	laboratory and experimental operations < 300 lbs per month	laboratory and experimental operations < 300 lbs per month			research and test < 300 lbs per month
	circuit board printing				
	heat shrinkable tubing				
	water slide decals				

Graphic Arts J-19 Last Revision 10/1/98

			Rule/Measure		
Rule/Measure	Bay Area 8-20, Graphic Arts Printing & Coating Operations, 12/20/95	El Dorado 231, Graphic Arts Operations, 09/27/94	Kern 410.7, Graphic Arts, 03/07/96	Mojave 1117, Graphic Arts, 06/22/94	Placer 239, Graphic Arts Operations, 08/14/97
Applicability	graphic arts operations and graphic arts lines	graphic arts operations	graphic arts printing operations	any packaging rotogravure, publication rotogravure, or flexographic printing operation	graphic arts operations
				any person who manufactures sells, offers for sale, or supplies ink, coating or adhesive containing VOC for use in above operations	any person who manufactures, sells, offers to sell, or supplies graphic arts materials
	gravure	packaging gravure, specialty gravure	gravure	packaging rotogravure	packaging rotogravure, specialty gravure
	publication gravure	publication gravure		publication rotogravure	publication gravure
	flexographic printing	printing operations	flexographic printing	flexographic printing	flexographic printing
	screen printing	web-feed wall paper screen printing	screen printing	exempt	exempt
	letterpress	letterpress	letterpress	exempt	letterpress
	lithographic printing	lithographic printing	lithographic printing	exempt	lithographic printing

	Rule/Measure							
Rule/Measure	-	El Dorado 231, Graphic Arts Operations, 09/27/94	-		Placer 239, Graphic Arts Operations, 08/14/97			
	coating or laminating for flexible packaging materials		coating or laminating for flexible packaging materials		coating or laminating for flexible packaging materials			
Comments								

			Rule/Measure		
Rule/Measure	Sacramento 450, Graphic Arts Operations, 12/05/96	San Diego 67.16, Graphic Arts Operations, 05/15/96	San Joaquin Valley 4607, Graphic Arts, 09/17/97	South Coast 1130, Graphic Arts, 03/08/96	Ventura 74.19, Graphic Arts, 09/10/96
Exemptions	small user emitting < 660 lbs per month including surface prep and cleanup	source emitting < 15 lbs per day	any operation emitting < 400 lbs per month	facility emitting < 8 lbs per day including solvent cleaning operations	facility emitting < 175 lbs per month including solvent cleaning operations
	laboratory and experimental operations < 300 lbs per month				research, classroom instruction laboratory analysis < 175 lbs per month
		ceramic or circuit boards		ceramic materials, circuitry printing	ceramic materials, circuit board printing
		manufacture of solar control window film, heat applied transfer decals, ceramic decals for firing above 800 F		solar control window film, heat-applied transfer decals,	
		water slide decals			
		proofing systems	proof presses	proof presses	
		embossing and foil stamping which does not use VOC			
		paper, film, and fabric coating operations (subject to Rule 67.5)			

Graphic Arts J-22 Last Revision 10/1/98

			Rule/Measure		
Rule/Measure	Sacramento 450, Graphic Arts Operations, 12/05/96	San Diego 67.16, Graphic Arts Operations, 05/15/96	San Joaquin Valley 4607, Graphic Arts, 09/17/97	South Coast 1130, Graphic Arts, 03/08/96	Ventura 74.19, Graphic Arts, 09/10/96
		lithographic printing plate development			lithographic printing plate making
		blanket repair material applied from non-refillable aersol containers of 4 ounces or less	blanket repair material applied from containers of 4 ounces or less	blanket repair material applied from containers of 4 ounces or less	
				sterilization indicating inks	sterilization indicating inks
			aerosol adhesives	aerosol coating products	
	publication rotogravure				
Applicability	graphic arts operations	continuous web or single sheet fed graphic arts printing, processing, laminiting or drying operations	graphic arts printing operation and paper or fabric coating operation		any person who uses uses ink, coating, adhesive, fountain solution, or solvent containing VOC as part of a graphic arts operations
				persons performing graphic arts operations or who solicit, specify, offer for sale, sell or distribute graphic arts materials	any person in the District who manufactures ink, coating, adhesive, fountain solution, or solvent containing VOC sold for use in graphic arts operations

Graphic Arts J-23 Last Revision 10/1/98

			Rule/Measure		
Rule/Measure	Sacramento 450, Graphic Arts Operations, 12/05/96	San Diego 67.16, Graphic Arts Operations, 05/15/96	San Joaquin Valley 4607, Graphic Arts, 09/17/97	South Coast 1130, Graphic Arts, 03/08/96	Ventura 74.19, Graphic Arts, 09/10/96
	packaging gravure, specialty gravure	gravure	gravure	gravure	
	exempts publication rotogravure				
	flexographic printing	flexography	flexography	flexography	
	web-feed wall paper screen printing	screen	screen		screen printing exempt
	letterpress	letterpress	letterpress	letterpress	
	lithographic printing operation	lithography	lithography	lithography	
	coating or laminating for flexible packaging materials	coating or laminating	coating or laminating	coating or laminating	
Comments			~500 facilities; 35 permitted		

			Rule/Measure	
Rule/Measure	Yolo-Solano 2.29, Graphic Arts Printing Operations, 05/25/94	Printing and Publishing NESHAP		
		Г		
Exemptions	small user emitting < 400 lbs per month including surface prep and cleanup	proof presses		
	laboratory and experimental operations < 300 lbs per month	sum total mass of materials applied < 5 weight percent of the total mass of materials applied per month		
		non-major sources		

Graphic Arts J-25 Last Revision 10/1/98

Rule/Measure	Rule/Measure				
	Yolo-Solano 2.29, Graphic Arts Printing Operations, 05/25/94	Printing and Publishing NESHAP			
Applicability	graphic arts operations	new and existing major source of HAPs			
	packaging gravure, specialty gravure	product and packaging rotogravure			
	publication gravure	publication rotogravure			
	flexographic printing	wide-web flexographic printing (18" wide or more)			
	web-feed wall paper screen printing	not covered			
	letterpress	not covered			
	lithographic printing operation	not covered			
	coating or laminating for flexible packaging materials	not covered if no printing			
Comments					

Graphic Arts J-26 Last Revision 10/1/98